

Mitchell (J. K.)

IMPEDIMENTS

TO THE

STUDY OF MEDICINE;  
A LECTURE,

INTRODUCTORY TO THE COURSE

OF

PRACTICE OF MEDICINE,

BY  
J. K. MITCHELL, M. D.,  
PROFESSOR IN THE JEFFERSON MEDICAL COLLEGE.



Delivered on the 18th of November, 1860.



PUBLISHED BY THE CLASS.



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## CORRESPONDENCE.

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PHILADELPHIA, October 26th, 1850.

PROFESSOR J. K. MITCHELL:—

Dear Sir—In compliance with the instructions of the Jefferson Medical Class-we, a committee appointed by them, most respectfully solicit for publication a copy of your Introductory Lecture, delivered on the 14th inst.

Yours, most respectfully,

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Gentlemen—The request you do me the honor to make, of a copy of my recent Introductory Lecture for publication, is cheerfully complied with.

Oblige me by offering my regards to the class you represent, and for yourselves accept the respects of

Yours, faithfully,

J. K. MITCHELL.

To Messrs. J. H. MACKAY, President,  
J. H. BRINTON, Secretary,  
JNO. G. BROOKS, &c.,

Committee, &c.



## INTRODUCTORY LECTURE.

GENTLEMEN OF THE CLASS—STUDENTS OF MEDICINE:—

IT is only here, or in places like this, that men ever meet such an assemblage as now rests before me. There are here none who have not reached the period at least of incipient manhood, and there are only a very few in this vast audience who have learned the sober lessons of active life. You are yet fresh and vigorous, young, ardent and inexperienced. The stars of hope yet glitter in your orient, unobseured by a single cloud, and untarnished by the exhalations of the misty world. You look on the past and the present without a sigh or a tear, and the beautiful future teems in your sanguine imagination with pleasures and honors, unabated by satiety, and unblighted by envy. How I wish that it might ever be so with you. How I would delight in believing, if I could, that you would falsify the mournful truth that “man is born to trouble, as the sparks fly upwards,” and live a cloudless life of peace and tranquillity; looking on the past with complacenceny, on the present with comfort, and on the future with the fondest hopes—as the most ardent of English poets has beautifully expressed it—

The mild majesty of private life,  
Where peace with ever-blooming olives crowns  
The gate; where honor's liberal hands effuse  
Unenvied treasures, and the snowy wings  
Of Innocence and Love protect the scene.

AKENSIDE.

But perhaps *even now*, on the very threshold of young life, some of you begin to feel what all must finally know,

“That not in humble or in brief delight,  
Power’s purple robe or pleasure’s flowery lap,  
The soul shall find contentment.”

The soul of man is in this world, like the dove over the wide waters of the flood, without a resting-place. There is no point of repose, and perhaps as sorrow and trouble are progressive, the surest way to escape them is to be ourselves ever in motion. The most active is therefore commonly the most happy man. Labor is often its own best reward, but the labor of the student, while it enjoys the common benefit, is additionally repaid by that knowledge which is an earnest of good for the future.

One would scarcely suppose that the quiet life of the candidate for future action is liable to any serious evils—but, like every other being, even the student is necessarily and professionally exposed to difficulties and dangers. To some of these, it is now my purpose to direct your attention, with the hope of being able to suggest remedies or prophylactics.

At the very threshold of professional life, the student is, in this country at least, subjected to some inconvenience from the want of preliminary instruction. Sometimes, misconceiving the true value of his previous attainments, or mistaking the bent of his genius, he longs to enter upon the study of an art which most of all demands a good education and a sound and discriminating judgment, talent to acquire knowledge, memory to retain, and tact to apply it; and that kind of moral ascendancy which inspires confidence in one’s self, and an almost implicit faith in others. It is true, and I have seen some fine examples of it, that perseverance and enterprise conquer all such difficulties, and enable a noble spirit to retrieve his case by attaining at one and the same time the elements of language and philosophy, and the soundest principles of the schools of medicine.

That those who are thus deficient may not despair, let me offer you the following narrative. One of my earliest pupils had been an apprentice to a sign painter. His mother, a widow, in bad health, labored hard to furnish him with the usual elementary

education of his station, and to keep him supplied with a decent dress for Sundays and holidays. It was not without a farther sacrifice of physical health that the poor woman thus gratified a mother's fondness and a parent's pride. During her long and painful illness, I formed an acquaintance with her son, and marked his devoted kindness and untiring service to her, who was to him as father, mother and friend. His manners, his faithfulness, his tact, won both my attention and esteem, and I longed to draw him to my own profession, in which I knew he would find the only fitting scope for his gentle and winning qualities. I shall never forget, gentlemen, the angel-like smile of his mother, when I laid before him, in her presence, my scheme for his advancement to a more enlarged and suitable sphere of action. She wanted no other medicine. The ministration to the mind struck like the touch of the angel-troubled waters of Bethesda on the fading form of that fond parent, and although her malady was organic and incurable, she resolved, in that moment, to live to see her son a physician. It was not alone a moral, it was also a physical resolve. Her frame felt the searching power of a mother's love, and she knew that the mighty principle would carry her to the bright period which lay far beyond her apparent term of life.

Thus stimulated, the widow's son began his medical career. His master, who valued his services highly, canceled reluctantly his indenture, making a condition, for which I was his surety, that he should not enter into competition with him in his business as an artist. Within three years from that time, my pupil made himself master of Latin and Greek, became a competent natural philosopher, and so qualified himself in chemistry as to subsequently teach, with credit, in a Southern college, that difficult science. He wrote a commendable thesis, graduated with much credit, and displayed subsequently in a wide field of usefulness, the estimable qualities for which he was, in his apprenticeship, distinguished.

As the period of his probation approached its end, and there rested no longer a doubt upon his full and final success, his mother began to lose, along with the excitement of hope and suspense, the health which these corroborants afforded to her frail being; and just a month after the honors of the profession were his, my

pupil followed to the tomb one who would not have discredited any station, one who beautifully illustrated the power and principle of maternal love.

Now, gentlemen, there are, no doubt, among you, some whose opportunities, like his, commence but *now* and *here*; whose fate it has been to lack the instruction and habits of study which smooth and adorn the pathway of professional labor, and leave no other impediments but such as are the ordinary obstacles of the course. Such may see in the case I have cited that the ornaments as well as the indispensables of our science may be won by all who will believe that the task *can* be done, and who are not unwilling to make the creditable experiment. If not for your own sakes, if not for the sake of the honor of the reputable profession to which you are to be devoted, if not for the sake of the alma mater which now receives you to its bosom, at least for the sake of those who gave you being, and who have spent many anxious years in an unrequited service, go back to them, fitted for the unalloyed exercise of your calling, and richly repay them by your honors and accomplishments for the love that knew no bounds, and the care that was ever a pleasure to them. How delightful must it be, my young friends, to produce, at such sweet meetings, the successive riches of well-stored minds, to brighten anew the home and the hearth, and to see in the mother's tender smile, and to feel in the father's manly grasp, the outward expression of the measureless joy that fills to overflowing the bosoms of these changeless friends!

While the example cited shows that our profession may be gained, and even exalted by one who has not had favorable opportunities, I do not mean to be understood as encouraging persons to enter upon the study of medicine without suitable preliminary learning. It is so multifarious and vast a science as to task fully the time and the capacity of the finest intellect and the most accomplished scholar. No man can reason justly on the circulation of the blood, or the mechanism of respiration, who does not comprehend the laws of hydraulics and pneumatics; and he who does not understand the French and German languages is denied access to some of the richest stores of medical literature. So, a man of defective mental powers cannot be sup-

posed to be able to disentangle the complicated elements of an obscure and multiform ease. Yet, as you well know, there exists a very general impression that of all the departments of learning, that of medicine exacts the least amount either of education or capacity.

When myself a student, I had cause to ride through a part of the professional district of my preceptor in Virginia, and visited among others a widow lady of estimable character and respectable position in society, when the following conversation occurred. "So you are a student of medicine?" "Yes ma'am." "I am glad of that, for I am about to send a son of mine to the doctor's to get his profession, and I wish you to give him a little help. He's mighty dull at learning, and not too ready to take up a book; but I think he'll make a fine doctor. He sets the chickens' legs now! and only the other day he mended the spoke of a cart-wheel, just as I once saw the doctor set my man Hominy's arm; two sticks and a rope did the business. He'll make a good docto[r], rely on it."

"Has he been well educated, madam? Does he read Latin and Greek? Is he master of mechanics, and chemistry, and"— "Stop, stop a little; you put me in a fright! Why, I tell you he is just able to read and write, and as to ciphering, the master said he always found *tit tat too* and never any sum on his slate—he never *did a sum*; but you know, doctos don't want figures except for their accounts, and somehow or other I find they all manage that part."

"But, madam, medicine is a very comprehensive and difficult science, demanding—" "Oh, as for that, it's just the degree, and calomel and a blister or two! Why, I think *myself* a very good docto[r], and I know nothing about Latin and Greek, and mathematics. I know a docto[r] or two hereabouts who can't sign their own names—and one of them kept me waiting a whole day for a remedy, which should have been given immediately, because he couldn't go home himself for it, and he didn't know how to write for it to his student. The man got well, after the medicine did come, and what more do you want? My eldest son is a shrewd fellow, speaks fluently, and argues ably; he is to be a lawyer. My second son is industrious and careful; he'll take care of the

farm. *As for Joe,* if I don't make him a dootor, what on earth can I do with him?"

You may well suppose, gentlemen, that I felt not a little mortified at a conversation which the good lady did not suppose offensive, inasmuch as it was a current notion to which she gave vent. I took good care to put my able and estimable preceptor in possession of the news of the qualities of his promised pupil, and he astounded the lady by telling her to make her young hopeful a tailor or a shoemaker.

Now, why did this lady, and why do ten thousand other people, entertain such an estimate of the pre-requisites for medical studies? Because students take so little pains to do more than acquire the mere elements of a medical education; because regular medicine is so full of imbeciles. While the profession is rich in fine examples to the contrary, no one can doubt that by far too many look on medicine as a mere trade—so much work against so many dollars—and as they know little themselves, they are disposed to undervalue learning in others, and thus by precept and example aid in disseminating notions not only derogatory to medicine as a science, but destructive to it as an art.

In the earlier periods of our national existence, this evil was a necessary consequence of the state of society. Refined and well-educated men could not often consent to bury themselves in the woods to earn amidst hardships and privations a scanty subsistence. The higher qualities of the profession could not be often used, and were more seldom properly appreciated. Indeed, few students of medicine could find means of obtaining a good preliminary education, or of following out in foreign universities a complete system of instruction. Hence society was compelled to take the best accessible adviser, and habit reconciled it to what was a necessary evil. *It is so no longer!* The love of learning is a characteristic of the people of this land of ours. Schools are everywhere! The common school, the academy, the lyceum and the college, follow to the boundaries of society the woodman and the hunter; and no student is debarred from scholastic attainments either by remoteness or poverty. If want of health or the negligence of others have straitened his means of acquirement, let him now retrieve his loss, and endeavor

as much as possible to prevent the perpetuation of the degradation of one of the noblest of the professions. It is a sad drawback to the zeal, emulation, and industry of one who enters with laudable spirit on his course of study, to find himself side by side with those who care for little beyond the mere routine of the trade. But let the noble aspirant for distinction and usefulness remember that it is only he, and such as he, who can wipe out this popular stain on the profession, and bring it to its proper purity and honor.

Another impediment in the way of a student is found in the *course of study* itself. Supposing him thoroughly prepared to enter on his quiet pursuit of professional love, he is often seriously at a loss as to his choice of books and the order of his reading, while he is puzzled and alarmed at the vast array of authors and subjects. Unfortunately, he feels these difficulties the most at the very outset of his career, and arrives sometimes even at his collegiate course without settled views or well-directed efforts. Unfortunately for him also, his preceptor is too often unfitted to be his guide. His many engagements, irregular as to time and imperative as to necessity, disqualify him for study, and make broken arrangements with his pupils a common affair. For both reasons, he is a bad guide. His library is often scantily supplied with good books, plates and preparations, and the novice finds in the few volumes he does see catalogues and commendatory notices of those which he sighs in vain to see. His aspirations after knowledge are thus unsatisfied even at the outset, and he is often condemned to pore over obsolete notions and antiquated lore, because his preceptor has ceased to purchase as he is unable to read. The text-books of the last era, with their exploded doctrines and rejected terminology, too often constitute the stock in trade of a country physician; and the pupil who comes up to a large city for his farther attainments, too often finds that he has been wasting time and opportunity in useless or even hurtful studies.

Even the journals of the progress of medicine, these newspapers of the profession, go out to but a small proportion of the physicians of the country, so that when a student does reach the city he finds much to learn that might have been more thoroughly

acquired elsewhere. This is an evil that needs only to be mentioned to be corrected; for I do not suppose that many of the excellent men who practice in the country wilfully expose their students to these evils. When they do, the student may, at very little cost, supply, himself, the deficiency, since there are many publishers and booksellers ever ready to duly fulfil an order from a distance; and the few new books absolutely required are cheap and intelligible.

The greatest merit of very recent works is that they are not filled with speculative notions and metaphysical distinctions, which formed in the last age so large a share of medical literature. That was the age of system and hypothesis, this of proofs and tables. In that, the author selected his theory, and, like a feed lawyer, set himself to the task of enforcing its truth by argument and sophistry. It was a point to be made! In this age, an author's opinion follows a long course of observation and experiment. It is the result of his labor, not of his genius, and if, as usually happens, he *cites* his facts, we are able to sit in judgment on his deductions. Under this system, the taste for hypothesis is dying, and a treatise which professes not to be a compilation or an experimental induction is now seldom treated with much respect.

But as the student is young, and ardent, and imaginative, he is too much disposed to be charmed by the *a priori* philosophy of the old schools of medicine; and the Boerhaaves, the Darwins, the Browns, and Bronssais of a former era are preferred to the Chapmans, the Dunglisons, the Woods, the Dicksons, the Bells, and the Bartletts of our own times.

An argument is, too, something like a fight. It *arrests attention* at least, and whether we agree or dissent, we take a side; and party zeal is always enchanting. On the other hand, when an author begins by setting down his cases and arranging and classifying his phenomena, the reader is called upon to exercise solely his patience and memory *at first*, and that is neither exciting nor racy. A library, consisting exclusively of old books, is, therefore, in medicine, a very dangerous neighbor to a student of genius, since it augments to a fatal degree the natural tendency of youth to avoid the detail so necessary to sound conclu-

sions, and causes him to overlook the only true basis of knowledge, well-observed and well-arranged phenomena. It also gives him a taste for brilliant ratiocination and sophistry, which are mistaken for truth, and which confer reputation at the expense only of an agreeable mental effort. It seems to me that our immediate predecessors in medicine were more solicitous to invent than to build systems, and plausibility of explanation was accepted as settled truth. And to an ardent youth, plausibility is commonly conclusive.

In looking at the general works on the science and art of medicine published in our own day, we are forcibly struck with their dissimilarity to those of the times gone by. No respected author of such works now pretends to present himself as a sole or even as a predominant authority in every page or chapter. He designs to give to his readers the accepted medical literature of the day, that which is sanctioned by the highest names of the profession in every country; and so far from wishing to dogmatize, he is properly pleased when he is able to cite other authorities, especially when the sentiments are not in contradiction to the philosophy of medicine. The great peculiarity of these works is the *variety* of sources from which the information they contain is drawn, and the readiness with which they accredit the lesser names of the profession for the truths which have been by them presented. Such works are good digests of the present state of medicine, and resemble those admirable compilations which have been much longer known and valued in the departments of law and divinity. Like those of the law, these fine aggregations of knowledge are indebted to their authors for their arrangement, their proportions, their style, and the not infrequent decision where conflicting opinions or opposing phenomena might puzzle and perplex the inexperienced reader. They often contain, too, novelties of fact, or principle, or practice, the offering to the general store, from the authors themselves, and the wise caution against a too ready admission of opinions, which, though sanctioned by eminent names, are not in accordance with the correct truths of the science.

Among the books of this class, I have recommended to those who follow my lectures to prefer that of Professor Dunglison,

as being the most complete and comprehensive work of its kind extant. It is an elegant, well-proportioned, miniature likeness of the medicine of the day. It contains such a reference to authorities as to enable you to extend your reading on any of its multifarious departments in safe directions. While its judicious author carefully guards his readers against doubtful authorities and hazardous experiments, he does not obtrusively throw himself into the scale of opinion; yet he has added much by original suggestion to the value of the work, and the greater part of the skilfully compounded formularies *are of his own construction*.

The work of the judicious and industrious Stokes has been greatly improved by the labors and learning of my friend Dr. John Bell, who has highly elaborated those parts of the book which refer to the diseases most incident to our own country. I hazard nothing in asserting that its value to the American reader has been more than doubled by the skilful additions and able annotations of the American editor.

Were I not afraid of overloading your book shelf, I would recommend also the able works of Watson and Wood, both of them elegant, elaborate and judicious.

The two first-named works, those of Dunglison and Bell, have been selected as my text-books; and, if properly studied, afford an excellent view of existing medicine. Yet, almost daily, cases reach us from the suburbs and the country which show that either such books form no part of the physician's library, or that they have not been read with attention. Even yet, notions founded on the exploded doctrines of older times occasionally allay a medical correspondence, and produce regret that a rapidly progressive science is limited to so few of the profession.

The practical effect of this incuriosity is often disastrous. In a country town (I believe it is called a city) of considerable population and scientific opportunities, no case of typhoid fever had been diagnosticated at the time when one of its oldest and most respectable physicians visited this city. At the hotel at which he had stationed himself, a case of that disease, of a well-marked character, presented itself. As he was requested to look at the ease, he, in polite terms, and no doubt with good intentions, found fault both with the diagnosis and practice, insisting that it was

a bilious fever, having for its basis a disease of the liver. The patient died, and at the *autopsy* he was very much surprised to see a perfectly healthy liver and an ulcerated *ileum*. "No such fever," said he, "was ever seen in our place." A pupil from this school, who is now a resident there, writes me that there is there seldom any other fever, and that his *post-mortems* exhibit the lesion which typhoid symptoms led him to expect.

Now, this evil rises solely from the want of attention to the new publications, which from time to time report the progress of our art and science; or from the indifference or aversion to the novelties which the medical journals furnish. This evil extends to the pupils, and as our first impressions are too often ineffaceable, the proclivity to error, created at the outset of professional life, too often tinctures fatally the whole course of existence, and gives to a medical tyro an antiquated mode of thinking.

Whatever may be the difficulties by which, in the country, a student is beset, they are of no less magnitude when he arrives in a great city to complete his course of professional study. Many have left home then for the first time, to be intrusted with what Byron calls that "dangerous heritage, the lordship of himself." Amidst an almost boundless population, to which he is commonly an entire stranger, he has to find his path with but little experience in the ways of the world, and without that distrust which is the safeguard of those who have long held communion with mixed society on a large scale. In the country, the position of every one is known, and caution or reserve follows an antecedent knowledge of the persons by whom we are addressed; or we give our confidence to those whom we know to deserve it. There, too, dress and manners are seldom assumed to carry on a fraud or intrigue, since they cannot disguise those who are already known to every one. A young and inexperienced student, therefore, is very apt to be entrapped by a pleasing exterior, or a winning address, and to take as true the well-told tale of sorrow or wrong. There is but one way to avoid this danger, and that is by studiously shunning the acquaintance of unknown persons, who are lavish of professions of regard, and seem imbued with an extraordinary spirit of benevolence. Love or friendship at first sight is a rare event, even for a woman, and we should not

let our too favorable opinion of ourselves inveigle us into the belief that our extraordinary merit has attracted and justified a violent and sudden regard. Persons who thus approach you do it to deceive, and I have had more than once to witness the sad consequences of a too ready confidence in strangers.

I should be sorry, however, to fill your minds with vague and general distrust, a very ungraceful and unamiable quality; but I would have you, while you receive such advances with propriety, to wait until you know something of their character before you unbosom yourselves to others, or give yourselves up to their guidance. Some seek your acquaintance to live on your bounty, some to invite you to games of chance, and others to allure you to the haunts of vice and intemperance; where your purses, your health, and your character are in danger of irretrievable ruin. Left to himself, a student, however inexperienced, is in little danger; but when led on by a practiced deceiver, he may find himself, by almost imperceptible steps at least in a perilous proximity to ruin. It is better, therefore, to be guarded in forming your acquaintance here; and it is especially necessary to receive with caution the professions of regard from unaccredited strangers who profess too much.

Supposing the student exempted, by caution of character or knowledge of the world, or impregnable virtue, from the dangers to which I have alluded, he is still liable to other evils. Among these, one of the most common is a careless method of study at the *outset of his first course*. If a man of ready talent, he is liable to the risk of postponing his efforts to some future time, when he promises to himself an active and productive course of study. Such a postponement, by increasing the work to be done, lessens still farther the desire to encounter the task, until at last the approaching period for graduation produces violent and hurtful exertion, often repaid by failure and disgrace. This fatal procrastination is too often the consequence of a desire to see the city and its hundred curiosities, to mingle with its society, and to enjoy its amusements. All that is laudable enough, save when indulged in at the expense of future honor and usefulness. Yet I would not discountenance proper and innocent recreation. He who studies always, and plays never, will not make as much

solid progress as if he were to occasionally and frequently unbend and refresh a fatigued mind by agreeable relaxations. The late Dr. Gregory, of Edinburgh, whom when a literary student I consulted in my own case, told me that four hours of grave study was as much as most minds could bear in one day, for a succession of many days, and that he had ascertained that those who spent more time than that at their books did not profit so much as those who made that time their limit. But, said he, the habit, *to be profitable, should be daily.* You have here, then, a rule by an eminent scholar and great physician, which, while it will afford you the richest results, leaves you time for exercise and amusement. Begin, then, on the first day, to review your subjects of study, and never suffer your task to grow large by neglect.

Students sometimes fall into an opposite evil. Ardent in the pursuit of knowledge, and solicitous to earn a degree with distinction, they enter upon a collegiate course with too much zeal and persistency, leaving themselves too little time for food or rest, and none for recreation or exercise. Some of them having pursued such a course in the country with impunity, believe that they may without injury continue the ceaseless efforts here. But you should know that while such an exertion is rife with hazard anywhere, it is particularly so in a great city, whose atmosphere is less pure and sustaining. The change of residence, and the period of life, are also deleterious elements in such cases, and render the experiment additionally hazardous. Hence we see that many hard students yield to the pressure of their labors, and lose by failing health more opportunity for improvement than is gained by their supererogatory efforts.

Another set of students spend much time over their books without learning in proportion to the period consumed. Those are they who, having failed in earlier life to acquire habits of study, have not the power of fixing attention, and read therefore listlessly and unprofitably. There is but one mode of curing this evil. It is by studying, pen in hand, and taking short notes of the purport of the book. This is a certain remedy, and will not only temporarily, but permanently cure the malady ; for in a few weeks the earnest student will find himself able to fix his

attention, even amidst the noise and bustle of a busy household. I would not advise a student whose powers of attention flag *through exhaustion* to make such an experiment, lest he produce a prolonged mental or physical debility. Whenever the attention of a trained student begins to flag, and he finds that he cannot by the usual effort command it, he should desist at once, and seek either repose or recreation, as the hour and opportunity may determine. The same abandonment is profitable when after an effort or two a difficult subject seems still cloudy and perplexing. That which appears obscure at one time is often astonishingly intelligible at another, and therefore time and labor are saved by turning, for an hour or two, the attention to something else.

The arrangements of this school of medicine offer for study two hours (from 8 to 10) in the morning, and an hour after dinner (3 to 4), so that there is required but one hour in the evening or at night to complete the term of mental labor suggested by Dr. Gregory. Some of you, who have friends or acquaintance, may prefer the evening for recreation; others, who require vigorous exercise, may choose to find amusement during daylight, and devote the evening to study. But all of you may have as much daily exemption from the labors of severe study as any reasonable man can desire, and thus preserve, by the judicious intermixture of action and repose, that good health which you bring with you from your parental roofs, and preserve that freshness of mind which receives forcibly and retains tenaciously all its impressions.

In the class of which I was a member, there was a young gentleman of liberal education and sound understanding, who thought all recreation a waste of time, and who was so ardently desirous to graduate with especial distinction that he never lost a moment. As the course advanced, his health became disordered, and there was perceived an obvious deterioration of his memory. These impediments only added to his zeal and perseverance; but zeal and industry could not overcome them, and he at length broke down under the effort to master the muscles of the spinal column. During this, his last desperate struggle, some of his companions, passing his lodgings late at night, saw for weeks his ceaseless

lamp burning over his painful toil, and they endeavored to laugh him out of his fit, as they termed it, by calling out to him, "Study the museles, boy." All his acquirements soon became to him a confused heap of unassorted rubbish; and after obtaining a degree, granted rather to his industry and character than to his power of winning it by an exhibition of knowledge, he retired to his once happy home sick and mortified. His eyes gradually failed him, and he at length lost his sight through a chronic inflammation, originating in his protracted nocturnal studies. Others of inferior capacity, who studied fairly, and rested judiciously, made better exhibitions under examination, and are, many of them, now among the most respected practitioners of the day.

The most propitious period of the day for study depends something on temperament, not a little on health, and a great deal on habit. Sometimes, too, family arrangements make the selection of the time of study rather a matter of necessity than free choice. It is not often in good taste to cite one's self as an example or illustration, yet in such a case as this I may be pardoned for saying that from my youth I have ever found the hours after ten at night most propitious to intellectual effort. I study then not only more easily but more intensely, and the acquirements then made remain longer in my possession. One of my friends can do most in a given time early in the morning, while another feels himself in the highest capacity in that sleepy period the afternoon. In general, those who digest well study easily at any time, whilst those who have gastric disorders are either unable to make extraordinary mental exertion during the first digestive period, or are then injured by successful intellectual efforts. It is far from being a matter of little moment to discover at what time, and under what circumstances, one may study to the best effect, since it is usually demonstrable that a great economy of time and labor may result from a judicious choice of hours. Each student must make this discovery for himself. It is enough that I should indicate the general truth. Its special application must be left to you.

Among the errors into which many students fall in the pursuit of a medical education, none is more common than an undue

admiration of one branch and dangerous neglect of another. Each, according to his taste or bias, is disposed to a system of favoritism, and while he makes, like a partial guardian, a pet of one branch, is apt to treat the rest with cold neglect. One, enamored of the beautiful theories and admirable processes taught by the physiologist, abandons himself too exclusively to the cultivation of physiology. Devoting to it an undue proportion of time, and bestowing on the hours given to less favored branches less of pleasurable excitement, he becomes insensibly little more than a physiologist.

Another, captivated by the art of the surgeon, attaches himself so exclusively to its simple reasonings and its brilliant operations as to lose sight of that part of medicine and obstetrics to which he is to be practically called more frequently and often more profitably. So, one may find so much pleasure in the difficult diagnosis of internal diseases, and the reasoning towards indications and remedies, as to forget that his first ease may be a broken limb or a strangulated hernia. He who means to reside in a populous city, where the profession is broken up into departments, may in this manner select the part to which he designs to devote himself with more appearance of reason; but even he will soon learn that a bad physician never makes a good surgeon, and that a physician who is ignorant at least of the *principles of surgery* is often placed in trying and sometimes in painful surgical positions. Much more is the exclusive student at fault in a small town or in the country. He may practice for years without seeing a single important surgical case, or he may find his hopes of professional success and reputation at once and for ever blasted by encountering an operation in ordinary or obstetrical surgery to which his competency has been prevented by injudicious inattention, when a student, to the less favored branch of medicine.

These sentiments, gentlemen, are not the offsprings of imaginary evils. The examination of candidates for degrees proves too often that there has not been wanting in those who fail to reach the sought-for honor the capacity to acquire, or the willingness to study, so much as the well-proportioned direction of attention. Students admirably prepared on some branches show an entire ignorance of others; and I am sorry to say that on the

practical subjects, to which all others are subsidiary, there is too often displayed a deficiency indicative of great thoughtlessness, or of culpable disregard of the awful responsibilities of the profession. We who have passed through the studies and ordeals of the profession, know that there is time for the student of ordinary capacity to learn all that he is expected to acquire, and they who examine students discover that the error usually lies in the disproportionate attention given by them to particular departments of the science. I express these things from no personal motive, since I am happy to say that the branch of medicine which I have the honor to teach in this place has been studied of late by the pupils of the school with commendable success. Give ear to me, then, my young friends, when I entreat you to distribute your time and attention so as to carry forward equably all your studies, assured that the parts of medical science are mutually dependent, reciprocally illustrative. You may hope, indeed, at some future time to retrieve the inequality, and thus console yourselves for present neglect by promises of future compensation ; but it is commonly in the very nature of disproportion to continue and to augment itself; and if with the incentives to equability here and now offered you become irregular or eccentric, what is there in the unknown “to come” that may present higher or better motives ?

Medicine has become a science. It could not be so much before our day. The sciences upon which it is built were themselves too imperfect to afford it a solid basis until now. The physical and chemical sciences being now highly matured, much that was once obscure or unintelligible in medicine is clearly understood, and the refined principles of those departments of knowledge may be often applied to the explanation of medical truth. The anatomist has discovered nearly all that the scalpel and the microscope can reveal, and the physiologist is employed in the daily task of widening the already ample domain of his knowledge. Although from its complexity and variety medicine must for ages, if not for ever, be a progressive art, its great principles are, many of them at least, apparently permanently settled. To these principles I would direct the attention of the learner in an *especial* manner. Without them, what is any physician but a routinist

or a quack, who gives medicine by a rule and not by a reason, and who can treat with even endurable correctness only obvious and ordinary cases of disease.

Among the evils incident to the student's course is a disposition to *learn by rote*; to charge rather the memory than the reason, and to overlook in his collection of phenomena and formularies the classifications and principles which can alone make his knowledge permanent and available, and without which he must remain on the ground acquired during his probation, or improve only by rare accidents. It is this bad habit of overlooking the principles which makes a student so often follow the practice of the shop in which he received his first impressions. As he did not reason then, nothing subsequently heard is rationally compared with his earliest medical conceptions, and he too often relapses at home into the errors and prejudices of his first teacher. A traditional medicine thus infests whole districts of country, and in many places, in which we might look for better things, the principles and the remedies of the last century remain masters of the field, from which have passed away the ancient roads and boats, and carts, and ploughs and flails. Nothing remains of that forgotten time but its calomel and its bile. *Bile to CAUSE, and calomel to CURE, everything.* Look, then, my young friends to the new principles and the new remedies which a progressive science brings to the aid of the physician. Endeavor to comprehend the nature, organic and functional, of disease, and the reasons for the indications as well as the *modus operandi* of the remedies. Take care not to burden your memories with formularies adapted to diseases by name or by stage, but learn to compound your medicines according to the aggregation and progression of symptoms, modifying them according to pathology, age, sex, temperament, epidemic influence, and climatic experience. Learning in this way, you will be able to practice rationally, successfully, and improovingly. You will make discoveries, and assign reasons for them. You will encounter new diseases, or new forms of old maladies, without doubts and fears; and having always a reason for the faith that is in you, you will not only be bold yourselves, but the giver of confidence to those who invoke your assistance.

Unless you pass through facts to principles, you cannot advance one step beyond your usual ground without danger of defeat and disgrace. I will tell you an incident illustrative of this truth in another science. You know that in hydrostatics it is a law, deduced from experiment and accounted for by reason, that a fluid presses on a given *area* directly as its depth. Not seeing the reason for this law, a *teacher of natural philosophy* in an eminent college endeavored, when on a visit to Philadelphia, to demonstrate the force of his lungs, of which he was vain, by showing that he could blow through a tube plunged more than three feet under water, "and that too," said he, "although the surface of the trough which held the water was very large." The listeners, men of science, wondered why he mentioned the size of the surface; and one of them said, "Why, you could do that as well in a lake or an ocean." That he thought impossible, and by his denial betrayed his ignorance of one of the best known of the principles of the art which he taught. It is needless to say that he lost caste at once, and was no longer esteemed by us as a philosopher. The intention to make him a member of our learned societies was abandoned, and the consequences of his ignorance were felt by him even until his death.

A more amusing illustration of ignorance of a principle is found in the following anecdote. A practitioner who was in attendance on a rather curious patient was asked by him how the food found its way to the *anus* while the water escaped by the *bladder*. Having forgotten, if he ever knew, the philosophy of absorption and of elimination by the kidneys, the doctor said that there were two tubes at the back of the mouth, with a valve between them, which shut down over one to exclude a solid, and over the other to reject a liquid; by which contrivance the liquids and solids were enabled to take their respective routes to the *anus* and *bladder*. That explanation seemed at first satisfactory, but after a pause, the patient inquired at what rate the clapper worked when a man was eating mush and milk.

A physician in a small country town, being sent for by an intelligent traveler, declared him sick of a fever, and proposed to give him some pills. The stranger, being of a cautious and inquiring character, demanded the practitioner's views of the

nature of his malady, and some account of the quality of the medicine offered to him. "Fever," said the physician, "is caused by the closure of the pores of the skin, and the effort of the blood-vessels to open them." "Nature," he said, "possesses no other mode of redress, and the confined humors usually thrown off by that organ assisted in exciting the vessels to greater efforts than usual." "Well, sir," said the patient, "what is your medicine, and how does it act in such a case?" "My medicine, sir," replied the physician, "is a *secret*; that is my *chief* remedy in *all diseases*, and so I keep it for my own benefit exclusively. I call my pills *stretching pills*; they stretch the pores wide open, and hold them so till the fever gets out." It is needless, perhaps, to add that the traveler preferred nature to the doctor, and suffered himself to *get well* without a stretching.

These are doubtless extreme cases of ignorance, but the want of a knowledge of what may be esteemed the accredited principles of medicine is betrayed even now in so many and hurtful modes as to warrant me in dwelling emphatically on this part of my subject. Nothing but such a defect can explain the adherence to the antiquated notion that medicine, like a cloud, changes its *shape as it changes its place*, until in its progress it becomes incognizable to its first acquaintance. The laws of mechanics, and hydraulics, and hydrostatics, and chemical affinity, are everywhere the same; vitality is invariably the same principle in every place; tartar emetic vomits alike a Chinese and a Chippewa; salts purge equally well a Samoide and a Patagonian, and the negro of New Guinea suffers under the force of an epispastic that which a blister inflicts on a Swede or Norwegian. Such exclusive notions are the relies of the dark ages of medicine, or are transplanted from barbarous regions. Well do I remember the answer of a Chinese mandarin, when I proposed to secure from an epidemic small-pox his only son by the introduction of vaccine virus. "My physician tells me," said he, "that the new art is perfectly adapted to its proposed object in the persons of *fanquis* (foreign barbarians, *strange devils* literally), but as the Chinese are differently constructed, and live in a different climate, disastrous and not beneficial consequences must flow from its application to them." The vaccination was not per-

formed—the fine boy was unprotected from variolous contagion, and fell finally a victim to sectional medical dogmatism.

An eminent surgeon in the service of the East India Company brought some years ago to this city a Chinese servant, who, in consequence of a severe railroad injury, was sent to the Pennsylvania Hospital. The surgeon of the house deemed it proper to bleed him, to the great distress of his master, who contended that the Chinese were sure to die if bled after accidents. The man did die; and that which was obviously the result of an irreparable injury seemed to his prejudiced eye a consequence of *one phlebotomy*. Yet that very surgeon, in conjunction with the celebrated American Missionary, Doctor Parker, had performed with wonderful success on the Chinese the most terrible and *bloody* operations. Admit, if you please, that race, and habits, and climate, produce modifications of disease, and call for occasional deviations from a general rule or standard of practice, as must happen in the *same place* from temperament, age, sex, epidemic and season; but deny that the established principles of *diagnosis* and *therapia* are inapplicable anywhere, or that the well-educated and judicious physician is incapable of moulding his knowledge to the wants of his cases *at any time or in any place*.

Gentlemen, I have been a traveler in my day, in many regions and in *all climates*. I have visited colder lands than this, and have reposited for many tedious months beneath the burning sun of the tropics. I have prescribed for Indians, negroes, Malays and Chinese, Portuguese, and Sandwich Islanders, with the result that in three voyages to the oriental world I lost but one man; and he died during chronic dysentery by a surfeit of raw pork, which he stole from the cook “to spite the doctor,” as he said, “for dieting him on bread and arrow-root.” I hope you will not suppose that I take any credit to myself for a result, a *natural* result of the application of principles of practice learned here, and adhered to in all climates and in every zone. Let the honor, if any, be given to my eminent master Dr. Chapman, who taught me these principles, and instructed me to adhere to them with a firm reliance everywhere.

So soon as you leave the quiet scenes of your college-studies,

and embark, as I doubt not you will do with honor, on the great sea of manly enterprise and useful employment, you will encounter many trials and vexations. Not the least important of these will appear in the shape of "sectional medicine," thrust in your faces as an objection to the knowledge which you will carry from this great centre of American medicine. This sectional medicine is usually but the traditional practice and theory of the place, followed almost as mechanically as it has been derived dogmatically. Let not your equanimity, therefore, be ruffled, or your faith and courage impaired by the unfounded clamor of sectional physicians. Pursue the even tenor of your way by the light hence derived, and it will happen to you, as it has already happened to hundreds of the alumni of these schools, that while you will secure to yourselves reputation and competency, you will drive before you the dark spirit of sectional empiricism, and thus do a permanent and public good, for your own time, and for future ages.

Should you encounter the mysterious and shadowy pretensions which, in the shape of secret remedies, or of Homœopathy, Hydropathy, Animal magnetism and Thompsonianism, assail and perplex the profession, how can you without sound medical knowledge, philosophically founded, encounter or dissipate them? If you have nothing but opposing phenomena, or unassorted facts by which to refute phenomena and alleged facts, you stand but on the same level with the empiric and the juggler, and instead of a philosophical victory you may have but a disgraceful objurgation.

The physician who does not endeavor to found his knowledge philosophically, is in danger, not only of suffering error to prevail, but to be carried away by it himself. Were this not so, should we see medical men, who have enjoyed good educational opportunities, plunging, often honestly, I trust and believe, into a belief in the infinitesimals of Homœopathy, or the Protean miracles of Mesmerism? Looking at those who lapse into such errors, you may commonly discover that they are men who are incapable by nature of seizing upon ample classifications or extended generalities, and who consequently believe in phenomena of the most incompatible character.

A physician educated here, but who lapsed through a proclivous nature into Homœopathy, came to me once for a motto for a book which he was preparing on Homœopathy. As he usually consulted me when himself sick, and yet gave his microscopic doses to others, I felt no reluctance to give him a blow, so I said that once when a ranting lover on the stage cried out to his mistress, "My wound is great because 'tis small"—the witty Duke of Buckingham added from a side box—"Then 't had been greater were it none at all." Now, Doctor, said I, you can put that together thus—

" My Physic's great because 'tis small,  
And would be greater were it none at all."

That is the whole argument of homœopathy in a couplet.

I have thus, my young friends, endeavored to give you a cautionary view of such of the evils to which in your course of study you may be exposed as are not commonly dwelt upon by teachers or authors. The catalogue, for want of time, is necessarily incomplete, but enough has been said, I hope, to show you how much of your current comfort, and of your future usefulness and happiness, depends upon the use you now make of what I may be permitted to call *most favorable opportunities*. The experience of the past entitles me to predict that very many (may I not say all) of you will go forth from this place, at a proper period, entitled to the fullest confidence of the public; accomplished for the prolonged guidance or the sudden discomfiture of disease, ready for the obscure chronic malady, or the imminent and terrible convulsion of the frame—alike fitted to cure sickness or confound empiricism—self-poised and philosophically armed—the hope and the rescue of the sufferer, and the terror and the vanquisher of the ignorant pretender.

Go then, gentlemen, to your noble work, remembering that on your present attention depend the comfort, the health, nay, the lives of thousands yet unborn; that he who means to ascend the hill of knowledge may find guides but not carriers—companions by the way, but not harnessed servitors: the path is steep and rugged, but yet there grow by the way flowers of fancy and fruits of sentiment. On the glorious summit of the Mount of Science

reposes the sublime statue of Truth, chiseled into form and beauty, from the rough material of nature, by the hand of philosophy. Waiting below, to see you reach the coveted pinnacle, stand with strained eyes and beating hearts the loved ones of home, the authors of your being, and the friends of your childhood. Methinks I hear the warm shout of triumph, as they witness the last elastic spring which plants you on the highest foothold, and entitles you to the honors and the duties of a noble science. Is it not worth some sacrifice?

"To run

The great career of honor; to exalt  
Your generous aim to all divinest deeds,  
To chase each *partial purpose* from your breast,  
And, through the mists of passion and of sense,  
And through the tossing tide of chance and pain,  
To hold your course unfaltering, while the voice  
Of truth and virtue, up the steep ascent  
Of Nature, calls you to your last reward,  
The applauding smile of Heaven?"—AKENSIDE.



